THE

CATTLE PLAGUE

AND

DISEASED MEAT,

IN THEIR RELATIONS WITH

THE PUBLIC HEALTH,

AND WITH THE

INTERESTS OF AGRICULTURE.

A LETTER

TO THE

RT. HON. SIR GEORGE GREY, BART., G.C.B.

SECRETARY OF STATE FOR THE HOME DEPARTMENT.

BY

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THE CATTLE PLAGUE,

ETC.

To the Rt. Hon. Sir GEORGE GREY, Bart., G.C.B.,

SECRETARY OF STATE FOR THE HOME DEPARTMENT.

Sir,—The national importance of all that relates to the PUBLIC HEALTH, and to the prosperity of AGRICULTURE,—the fact that a part of the subject on which I have undertaken to address you was very recently brought before Parliament without result beyond a stimulus to inquiry, may, I trust, be in some measure regarded as justification of the course I have adopted, in undertaking to expose a system, actually productive of great calamity and imminently threatening a much greater one,—a cattle plague. It is a fact beyond question that the people are already very largely consuming diseased meat as food; no less certain is it that the importation of foreign cattle imminently threatens us with the invasion of a plague, which is devastating the herds in various parts of the European continent, which has called from the French and

Austrian Governments the most energetic sanitary provisions, based on enlightened and laborious scientific inquiries,—a plague to which, unhappily, we are no strangers; for in the last century, when, according to Faust, it destroyed two hundred millions of beasts, according to Schwarzhop nine-tenths of the cattle of Europe, according to Paulet one hundred and fifty millions of beasts from 1711 to 1714, it three times visited our shores, and called from Parliament the most energetic measures.

In performing the duty I have assumed, I shall have to demonstrate defects in institutions, insufficiency of laws, and want of competent officers. From no part of the duty do I shrink, entertaining a full sense of its magnitude and of my own responsibility.

I pledge myself to make no statement which I am not able and prepared to demonstrate true in its whole extent by facts, observed and rigorously analyzed by myself and by my brother, Professor John Gamgee, to whose indefatigable co-operation I am very largely indebted for being able to bring this matter to the notice of Her Majesty's Government.

It is very generally suspected, and a Committee of the Metropolitan Association of Medical Officers of Health has proved, that unwholesome meat is sold for food in large quantities to the London population. The quantity is even much greater, and the quality very much more deleterious, than

the said committee had means of ascertaining. And it is not only to the detriment of the population of this metropolis that the evil operates; it prevails in Scotland to an enormous extent, and there is no valid guarantee against its operation throughout the empire.

The law has taken cognizance of the evil above stated, but its provisions are based on incomplete and defective data, and in practice they fail to guarantee the public health and the interests of agriculture.

In the intent of facilitating the exposition of facts to substantiate this preliminary statement, I propose arranging them in four categories.

1stly. *Statement of the existing evil.*

2ndly. *The inefficiency of existing laws.*

3rdly. *Statement of impending danger.*

4thly. *An exposition of the principles on which the urgently-required legislation should be based.*

FIRSTLY,—STATEMENT OF THE EXISTING EVIL.

The existing evil is multiple. *a.* Public sale of diseased beasts with healthy ones, in consequence of inadequate inspection of live markets and cow-houses. *b.* Inefficient inspection of slaughter-houses and dead meat markets. *c.* Insufficient state of knowledge on cattle diseases, due, in great measure, to non-observance of the very wise regulations framed by the founders of the Royal Veterinary College of London.

a. Public sale of diseased beasts with healthy, in consequence of inadequate inspection of live markets, and cow-houses. It is a publicly notorious fact, repeatedly verified by my brother, that diseased beasts, in very considerable numbers, are sold in the New Cattle Market at Islington, which I inspected on Monday morning the 16th inst. The live beasts were generally extremely well-conditioned and thoroughly sound; but standing amongst them were three diseased beasts. One of these was emaciated and hide-bound, with abscesses in various parts of the body, particularly over the region of the head and neck. From the clinical observations I made on diseased cattle, nine years ago, I believe this case was most probably one of pyæmia following typhoid fever. A second beast was in ill-health, viz., thin and feverish, but I could not make a precise diagnosis. The third diseased beast was a fat one: it was lying down, moaning, looking round anxiously at its flanks; pulse 110; respiration 45; pleuro-pneumonia.

On Friday, the 20th inst., I several times visited the Islington market, and found in it many diseased beasts. The most remarkable example was a row of twenty-one very small and very old and emaciated cows; several of them bore unmistakable signs of old disease; one of them was moribund; it was standing in the throng, leaning almost its whole weight on the beast near it, striking out its

head, panting for breath at the rate of forty times per minute, emitting large volumes of hot vapour from the lungs; its eyes were fixed and staring in the lean and deepened sockets; in the arteries of the extremities the pulse had ceased to beat; and out of two large ulcers the hinder extremities of the hip-bones protruded through the skin, which seemed artificially stretched over and bound down to a lifeless skeleton. From numerous inquiries in the market, I learned that such a state of things is by no means unfrequent. In reply to my inquiries, an official in the administrative department made the following statement:—"It is notorious about diseased beasts in the market: never a market without them; often beasts are disgraceful to look at,—certainly unfit for human food: could not say why the inspector did not seize them."

I had several interviews with the Inspector of the market, Mr. Nice, a veterinary surgeon, who with the greatest urbanity answered all investigations; the result of which was a conviction on my part that, although Mr. Nice appears to have performed a great public service by his inspection of the horse-market held at Islington on Friday, he has not exercised the control necessary for excluding diseased beasts from the healthy cattle-market. It did not appear to me that the Inspector's knowledge of the diseases of animals used as human food, is on a level with what is known of the

subject, and with what is absolutely required for the public safety. On the whole, I was led to entertain a very decided opinion, that good ground exists for immediately inquiring into the manner in which the inspection of the New Cattle Market is effected.

The cow-houses with which London abounds, are practically exempt from inspection; although, with extreme zeal, several of the Medical Officers of Health have, accompanied by the Inspector of Nuisances of their respective districts, visited those localities. But such inspection, to be valid, must be systematically frequent, and performed by professional men practically acquainted with the diseases of cattle. Under existing circumstances the large number of cows which become diseased in the London sheds are, with perfect impunity, sent to the Islington market, or to slaughter-houses in the metropolis, to be sold for human food, after having for many days, and sometimes weeks, been kept in the shed, yielding from one to two or more quarts of milk, which is sold for daily consumption. I have a water-colour drawing, executed by my brother in 1855 in the Fox and Knot slaughter-house in Smithfield, from a specimen of typhoid disease in a cow, which had been carried to that establishment for sale from one of the dairies adjoining Belgravia, in which dairy my brother had seen the cow alive just previously to making the *post-mortem* examination.

b. Insufficient inspection of slaughter-houses and dead-meat markets. On Monday the 16th instant, I inspected one of the slaughter houses at the New Islington Cattle Market. In it I saw five carcases, three of oxen, two of sheep. One of the latter was of magnificent shape and condition, so far as fat was concerned, but the whole carcase had a uniform dusky red colour, evidently the result of general infiltration with bloody serosity. The carcase having been trimmed and completely dressed for the butcher, I had no means of inspecting the viscera. Two of the oxen were much emaciated, and had apparently died from typhus or typhoid fever; they presented numerous bloody extravasations in the subcutaneous, inter-muscular, and sub-pleural cellular tissues. I should have required to see the viscera, in order to state accurately the nature of the disease, but they had been removed. The third ox was large, moderately fat; pleuro-pneumonic. I carried away the lungs of this beast; they were infiltrated with solidified plastic matter in almost their whole extent; so that, whereas their average weight should have been about eight pounds, it was twenty-seven pounds. The disease was in its acute stage. Although the carcase had been very skilfully trimmed and dressed, the flesh in the walls of the chest and abdomen bore unmistakeable marks of disease. The slaughterman stated that these carcases would be conveyed to the city markets, where

they would be *sold as food.* In his opinion, those carcases were not diseased, nor would they be considered such by the city meat inspectors. He even maintained that the lungs were not diseased; he said they only contained congealed healthy blood!

On Sunday, the 23rd instant, at 5 p.m., I inspected the same slaughterhouse, where several men were busily at work. Twelve very fair recently-dressed carcases were hung up, two of sheep, ten of oxen; additionally three diseased carcases, two of which were dressed but quite warm, a third was in process of *trimming.* These three were very old, extraordinarily lean cows, destitute of the least particle of fat; the flesh was pale, nearly white, extensively ecchymosed, the cellular tissue inflated with gas; in the buttocks of the beast which was being trimmed were huge masses of putrid, bloody, and disintegrated muscle,—the whole appearances were those of advanced typhoid disease. From two of these cows two calves, nearly at full period, had been removed; they were now hung up, and would, from all I have seen in Newgate market, and personally learned, no doubt be sold in that market, or cut up for sausages. Firmly convinced that all this diseased meat was unfit for human food, I sought for some official all over the market, and in the clerk's office, but I could find none; consequently, to the desecration of the Sabbath was added the preparation of dis-

eased food for the people, without any chance of the merited chastisement being inflicted. Such a system must act as a premium to knavery.

So far as I have been able to ascertain, the slaughter-houses in the New Cattle Market are exempt from inspection: the clerk of the market so informed me, and he added that he regarded those establishments as private, inasmuch as though the buildings formed part of the public market, they were let to private individuals. If such be the fact, and I believe it practically is so, a premium is offered to sending diseased beasts to the cattle market; for the inspection of live stock being lax, and the slaughter-house exempt from supervision, the greatest facility is offered for disposing of diseased beasts and preparing their carcases for the butcher, with all those arts of trimming, dressing, and polishing, which are well known to veil appearances of disease, so as to beguile the inexpert, to facilitate a commercial fraud, and introduce the seeds of disease, and not unfrequently actual poison, into the unhappy individuals who unconsciously partake of the meat for the sustenance of their lives.

Inspection of the city markets is inadequately performed. It is notorious that much bad meat is sold in Newgate Market, which is under the special charge of Mr. Pocklington; granting, which I do with the fullest conviction of according what is due, that the official named is a man of upright

intentions and a most worthy servant of the City Corporation, I submit that the alleged evil is a very regretable reality; yet it is no matter of surprise. Mr. Pocklington is the collector of rents of Newgate Market for the City, a duty for which he receives four per cent, and which must necessarily occupy the greater part of his faculties, he being upwards of eighty years of age. Very true is it that Newgate Market contains a large number of very honourable tradesmen, but when the public health is concerned, the goodwill of individuals must only be trusted to in a limited extent; while it is notorious and can very readily be proved, that many unprincipled individuals inhabit the market, there to carry on a nefarious trade in unwholesome food.

On Saturday afternoon, the 22nd instant, I visited Newgate Market. The establishments of the large salesmen were all closed, and, at numerous little shops, meat was being sold, chiefly by men of disreputable appearance, to poor persons. The quantity of diseased meat, most unquestionably unfit for human food, was very large; what I saw in half an hour would have laden a single-horse cart: amongst other specimens, I saw, at the back of a little dark shop, a very thin pale fore quarter of beef, extensively ecchymosed, for which I was asked three pence per pound; in another place a saddle of mutton, the muscle of which was pale and pappy, the scanty fat, moist, and deeply tinged

with the characteristic yellow of bile; many legs of mutton and huge pieces of beef were either in an advanced stage of putrefaction or bore unmistakable marks of organic disease. I sought about the market for officers, but I only found the beadle in his closet; the meat inspectors were nowhere to be found, and I reluctantly made my way to the meeting room of the Medical Society of London, to relate the scene of filth, fraud, and negligence which I had witnessed.

Newgate Market is also inspected occasionally by Mr. Fisher, the general inspector of the city markets and slaughter-houses, to whom I am greatly indebted for most kindly affording me opportunity of full inquiry into the duties of his office, and of ascertaining his mode of performing them. He is a zealous, valuable, and gentlemanly officer; but his duties are such, that the matter for surprise is that the existing very great evil is not much greater. Mr. Fisher possesses a large fund of empirical knowledge; but in examining him relatively to the diseases of animals, I find he is deficient in knowledge respecting them; as it is reasonable a man should be, however by nature intelligent and zealous, who has not been especially educated for the business in which he is engaged. I consider, and it would be difficult to discover grounds for questioning, that an inspector of a great market should be thoroughly acquainted with the anatomical states of disease, and with their re-

lative import in all particulars concerning the public health.

The inspection of the London slaughter-houses and butchers' shops beyond the precincts of the city is professedly performed by the Inspectors of Nuisances; but the duties of these officers are so numerous, that it would be impossible for them to perform the required special duty, even if they possessed the requisite knowledge, which they do not. As an example, I shall allude to the parish of St. Pancras, which I inhabit. It contains one Inspector of Nuisances, a most zealous and intelligent person. The parish contains one hundred and ninety thousand inhabitants; it is impossible that any one officer can discover and keep down the common nuisances; and yet the present inspector, who receives a salary of £100 a year, is expected, besides the supervision of the common nuisances, to inspect the one hundred slaughter-houses licensed in the parish. Such a system of inspection can only have the effect of engendering a false belief that a great public requirement is provided for; practically, it must leave the duty in great measure unfulfilled.

c. Insufficient state of knowledge on diseases of animals, and especially of cattle, in great measure due to non-observance of the very wise regulations framed by the founders of the Royal Veterinary College. The 17th, 18th, and 19th regulations are so provident, and, if carried out, would be produc-

tive of so large a measure of public good, that I transcribe them in full.*

"*Regulation* XVII. There shall be chosen, on the day of election in each year, two Committees, viz., a Medical Experimental Committee, and a Committee of Transaction.

"*Regulation* XVIII. The Committee of Transaction shall be charged with the selection, compilation, and arrangement of the matter for the annual volume of Transactions, and the preparation of a prefatory discourse.

"*Regulation* XIX. The Medical Experimental Committee shall meet occasionally for the purpose of suggesting and trying experiments, with a view to throw additional light on the animal œconomy, and to discover the effects of medicines upon different animals, to be procured for that particular purpose; and this Committee shall from time to time make reports of their proceedings to the Council."

So far as I am aware these two Committees are not in existence, or if they be, they produce no results. It is moreover provided in *Regulation* XXVII. that a volume of the Transactions of the College and School shall be published annually, and de-

* Veterinary College, London, established April 8, 1791, for the Reformation and Improvement of Farriery and the Treatment of Cattle in General. London, 1791 : pp. 16. This very scarce pamphlet of Regulations may be seen in the Library of the British Museum.

livered to each subscriber gratis. Such publication would obviously be the means of diffusing over the nation a large amount of scientifically interesting and practically useful knowledge: but the law enjoining it is only suffered to subsist as a dead letter. At p. 11 in the Regulations for the course of study, we read: "A knowledge of the common plants and herbs being necessary to the veterinary physician, the pupils shall attend a course of botany relative to veterinary medicine. This course shall take place in the afternoon, and shall, as well as the preceding, continue during the summer." There can be no question as to the wisdom of this provision, and its practical requirement, as testified by the fact that, in all the veterinary schools of continental Europe, its execution is most faithfully provided for; but in the London Institution, for which it was originally framed, it is completely set aside, and the pupils are sent home in April for a six months' vacation, without any educational pursuit for the summer months, which were especially prescribed for in the original code. At no period of their course are they taught anything of botany. At p. 13, the following passage occurs: "It appears from the above division of the studies, that a term of three years is sufficient for a complete education, provided the pupils are capable, assiduous, and well-instructed." The three years, be it observed, including summer and winter sessions. At present, the pupils only receive instruction two

winters; the whole summer is a vacation, from April to October. The two winter courses are identical; so that instead of the mind being trained by degrees to a knowledge of the profession, as the original laws directed, it is unsystematically crowded one winter, and subject to the very same process in the next; while the means for practical instruction are altogether insufficient. It is strictly true to allege, that the Institution affords no practical instruction in the diseases of cattle.

I have very good reason for believing, though I have not the means of proving, that the above institution, in the early stage of its existence, received subsidiary grants from Parliament. Certainly it owes a duty to the country, for the performance of which duty laws were framed by its wise and philanthropic founders. I cannot but doubt that the existing Council can have no idea of the nature and extent of the evil, which, I submit, is matter demanding the fullest and most urgent inquiry.

The veterinary profession includes a notable number of gentlemen of distinguished talent and experience; but they have attained that position in consequence of individual endowments and effort. The mass have derived very much less advantage from the institution than they had reason to expect, from an establishment founded for a scientific and economical purpose, which it does not fulfil. After personally inspecting, and that most carefully, the

Veterinary Schools of Belgium, France, Switzerland, Italy, Wurtemburg, Austria, and Prussia, my brother and myself have come to the conclusion, which we are prepared to prove, that whereas England's wealth in animals by very far exceeds that of any other nation, it is very far inferior to all the countries of continental Europe, in knowledge of the diseases of animals, and in means for instruction in that all-important branch of science, and public œconomy.

So far, I believe, I have proved the existence of national evils; many more facts might be adduced to support the evidence I have adduced, but if it be conclusive, to more I cannot aspire; hence I proceed to the consideration of the next division of the subject:—

Secondly, The Inefficiency of Existing Laws to Provide Against the National Evils in Question.

The fact that the evil overtly exists to so large an extent as has been stated, may fairly be regarded as proving one of two things, or both conjointly, *Defective legislation, or ineffieient administration.* I believe the evil is referable to both these causes, and I do so for the following reasons. On the 17th instant, I proceeded to the Mansion House with portions of one amongst several diseased beasts which I had seen slaughtered the previous day as fit for human food at the New Islington Cattle Market. I was not permitted to make a statement of the

facts in open court, the clerk stating that such a course could not be pursued. As the Lord Mayor did not sit in court that day, I took the liberty of sending in my card to his lordship, with a prayer for an interview, which was most graciously granted; but his lordship could not, in his capacity as magistrate, hear my verbal statement, and he suggested that I might take out a summons against any guilty party, or submit a written charge which he would forward to the City Markets Commission. I sincerely thanked his lordship, and applied in the court for a summons against Thomas William Farey, the slaughterman, whose name was painted on the door of the building in the New Cattle Market wherein I saw the diseased carcases, and whence I had carried away the diseased lungs; being careful, however, to obtain full evidence that these lungs had belonged to a beast slaughtered and hung up as fit for human food, by a servant of the said Thomas William Farey. But the summons against this individual was not granted me, on the plea that the New Cattle Market, in Copenhagen-fields, is not in the city police district, but in a totally different one, in which jurisdiction is exercised by the Magistrate sitting in Clerkenwell. His worship received me most kindly, and, with great pains, examined the Acts of Parliament under which we might summons Thomas William Farey. In conclusion his worship stated that the case was new to him; that he did not feel that he had

any jurisdiction under the circumstances; but he pressed me to continue my researches, with the certainty of their being of great public utility.

A system of law cannot be regarded effective which permits the slaughtering of beasts extensively diseased, without control, in a public market, the property of a great city corporation, without holding the slaughterman accountable, and readily and efficaciously bringing him to justice if he offend so as to endanger the public health. The various Acts of Parliament regulating the sale of meat, do not appear to me to fulfil the intention of their framers and the public requirement, if they do not give to a magistrate other jurisdiction than his worship sitting in Clerkenwell believed he possessed, under the circumstances which I brought to his notice.

Further observations of the law relating to the whole question may with convenience be ranged under two heads: 1stly, as regulating the sale of meat; 2dly, in its application to the spread of contagious diseases amongst animals. A variety of Acts (11 and 12 Vict., cap. 61 lxiii; 14 and 15 Vict., cap. 61 xii; 18 and 19 Vict. cap. 121 xxvi) empower inspectors of nuisances, clerks, and others duly appointed, to inspect slaughter houses, butchers' shops, and other buildings or places where dead meat is exposed or offered for sale; and in the event of such meat appearing to the inspector *unfit for human food*, he may seize it; and a Justice of

the Peace has the power of inflicting a fine not exceeding twenty pounds, on the seizure being reported to him, and satisfactory evidence adduced, that the meat *is unfit for human food.* It is the wording of this expression which renders all but nugatory the Acts in which it is employed. What is it that renders meat unfit for human food?—*Dryness*, *wetness*, *pallor*, *redness*, *smell*, are all qualities which, in various degrees, may belong to sound, though not absolutely perfect, meat; but it is not *imperfection* or inferiority of quality which has to be proved, but *absolute unfitness for human food.* Who are the officials to determine this unfitness? The inspectors of nuisances and inspectors of city markets; the former received some general instructions on the subject last year, but they know very little of the matter compared to the city markets inspectors. But even these are imperfectly acquainted with the qualities rendering the meat unfit, as proved by the very incomplete instructions which, at the invitation of a committee of the Metropolitan Association of Medical Officers of Health, they were able to give to the inspectors of nuisances. Mr. Fisher, who is the most able and efficient of the two city inspectors, when examined by me, stated that he only knew of two diseases, *the lung disease* and *the foot and tongue disease*, as affecting cattle. The fact is, that to determine the question of *fitness* or *unfitness*, a man must be furnished with the lights of science as to the relative import of the *long list* of

diseases to which the beasts are subject, which serve as food for man. But live markets, slaughter houses, and dead meat markets, need conjointly the most rigid inspection; for if it be permitted, as I have proved it is at the New Cattle Market, to slaughter a beast labouring under typhus, and leisurely and artfully trim it, viz., cut away the portions of disease, it may be impossible to prove, on seeing the remainder of the carcase in a butcher's shop, that it is unfit for food, while in point of fact it is of the most deleterious nature.

But allowing that the law empowering the inspectors is meagre, repeated observations have convinced me that the inspectors must be inefficient, negligent, or disabled from doing their duty by over work or other causes. Much of the meat which I have seen exposed for sale in Newgate market on Saturday afternoon, was of the worst description; and most unquestionably unfit for food; yet the low shopmen were with impunity plying their nefarious traffic; the wives of poor men eking out the hard earnings of the week to procure—the seeds of disease, and possibly the stroke of death! I knew the law to be imperfect; but, as it is, it would have been useful if put into execution. There were no officers to execute it. What I saw is no exceptional occurrence.

Imperfect also is the act 11th and 12th Vict., cap. 107, "To prevent the spreading of Contagious or Infectious Disorders among Sheep, Cattle, and

other Animals." That act was passed in 1848, at the critical season of the importation of small-pox amongst our flocks, and to prevent the spread of that disease does the act exclusively tend, though it professes to limit the diffusion of infectious diseases generally. The various sections of the act refer to "sheep pox, or variola ovina, or any disorders of the like nature," a phraseology which must limit the operation of the act to the small-pox of sheep,—a specific disease, like small-pox in the human subject, distinct from and unlike other diseases: any other diseases to which the act is intended to apply should be distinctly designated; for the general expression *contagious or infectious diseases*, would always give rise to litigation and frustrate the aim of justice; seeing that to adduce absolute proof of a disease being contagious or infectious, is a task of the greatest difficulty; I may cite cholera as an instance of remarkable dissidence of opinion amongst eminent authorities as to its contagiousness or infectiousness; although during the many years since it first invaded Europe, the most elevated talent, erudition, and critical acumen have been applied to determine the question at issue.

Thirdly, Statement of Impending Danger:—

If the existing evil alleged in the first section be real,—and, with deference, I believe I have demonstrated it to be such in an eminent degree,—if the inefficiency of existing laws treated of under the second head be a reality, then, to the health of the

people and to that prime element in the nation's wealth, the live-stock of the agricultural community, the actual danger is incalculable. How to compute it when we contemplate the possibility, nay, if provision be not made, the very great probability, of a pestilence amongst cattle? Happily, though our sanitary code is singularly incomplete, the basis for it is superb. To no country are we second for the eminent talents of medical officers of health, such as have been appointed in accordance with comparatively recent parliamentary enactments. France and Germany have greatly excelled us in the study of the questions more immediately considered in this address; but the learning and experience of their savants is at our disposal: then let it be collected, and be made the basis of an efficient legislation, which taking a comprehensive view of all the interests involved, a calm accurate estimate of the actual and impending danger to the public health and to the interests of agriculture, shall legislate for it as urgently and effectively as upon full and competent inquiry circumstances shall seem to demand.

Fourthly, An Exposition of the Principles on which the Urgently-Required Legislation should be Based:—

The actual and impending evil demonstrated being twofold,—firstly, the spread of a fearful disease amongst cattle, and secondly, the consumption of diseased meat by the population; for both of

which existing laws very inadequately provide; it is with reference to such of those calamities that the principles on which legislation should be based may be conveniently considered; and, firstly, as to the threatening plague invasion, with the certainty that if it once penetrate our herds, all human means will fail to arrest its work of relentless devastation. Unquestionable is it that for the last few years contagious typhus, popularly designated *the murrain*, has prevailed amongst cattle in various parts of Europe; and that the Austrian and French governments, guided, the first one by the learning of Eckel, the second by the result of a commission expressly sent into Hungary by the Emperor of the French, and composed of such eminent men as Renault, Yvart, and Imlin, have ordained the most stringent sanitary regulations, which hitherto appear to have succeeded in checking the pestilential progress; but the experience of the last century in the same malady, and the great difficulty generally attendant upon preventing communications between the various parts of a continent, is good ground for apprehension, lest the barriers with which the stringent laws have hitherto confined the plague, may from day to day be broken down, and the whole European continent again involved in one of the most terrible of calamities. Our insular position offers much greater facility than does the geographical relation of France and Germany, for arresting the typhus indigenous to, and spreading from, the Steppes; and

there is very good reason for hoping, that, provided our legislative enactments be as enlightened and provident as those of the afore-mentioned governments, our chances of immunity will be greater in proportion to our superior geographical advantages.

About seven hundred head of cattle are imported every week for the London market, in the proximate proportion of three-fourths from Holland and Northern Germany, and one-fourth from Spain. A regulation has provided for the sanitary inspection of foreign cattle on landing on our shores, but it is possible beasts and persons may, for the time, be in apparently perfect health, and yet be the bearers of the seeds of contagion. It is established, that the contagious typhus has an incubative stage of several days duration. Under such circumstances it would appear as if perfect impunity could only be purchased by absolute prohibition of cattle imports, a measure which, however laudable in its aim, would be productive of serious consequences, by necessitating a very considerable rise in the price of animal food. Cheapness of food is manifestly a desideratum of great importance, and no effort should be spared to secure it, consistently with safety to one of the greatest sources of national wealth—the live stock of the agricultural community. I would recommend that no ship should be allowed to land cattle on our shores without producing a clean Bill of Health, in form of a certificate from the British consul at the port of export,

that no epidemic or contagious disease prevailed among the cattle of that neighbourhood As the Spanish cattle are very good, and there is every reason to believe that the supply could meet a much greater demand, sanitary regulations might render advisable, and œconomical reasons not oppose, the propriety of prohibiting for a time the importation from Holland and Northern Germany; for certain it is, that thence did the contagious typhus pass over to England in the last century, and that the greatest fears are now to be dreaded from that quarter. The value of these suggestions must depend upon accurate knowledge of the state of the disease all over the continent; which information, once acquired, it would be very easy to keep up to the level of the day. As I believe such knowledge does not exist in this country at present, I venture to suggest that its acquirement is a matter of the very first importance. The labours of the French Commission in Hungary and Bohemia extended over several months; no doubt the French Emperor's Minister of Agriculture would place them at the disposal of any commissioner from Her Majesty's Government, who might additionally in a very few weeks examine and report upon the state of cattle in Spain, Italy, Holland, and Northern Germany. At the same time such commissioner might be instructed to collect information relatively to the laws in force in various countries for preserving the health of cattle, and

commensurately affording guarantee to the *Public Health.* A consideration not to be overlooked in these inquiries, is to ascertain precisely what danger may attend upon the large quantity of raw hides imported into this country. It is so undoubted that the hides of beasts affected with contagious typhus are capable of producing the disease, that one of the measures of continental governments to arrest its progress, is to order interment of the hide with the carcase. The line of inquiry indicated might render necessary, as a prudential and harmless measure, the disinfection of hides imported from suspected localities; if the scourge did visit us, in spite of all efforts to provide against it, it would be a source of gratification to reflect that those efforts had been enlightened, strenuous, and unsparing.

A second no less urgent call for effective legislative enactments is the vast amount of diseased meat consumed for food by the population. Here it becomes of first importance to consider what is the effect on man of eating meat from an animal that has died or been killed with disease. Numerous authorities attest* that such alimentation may be and

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* *D. Meier,* in Archiv für Thierheilkunde von der Gesellschaft Schweizerischer Thierärzte, Band xii, heft, 2, s. 148. *Albert,* k. 6. Landgerichtsarzt zu Enendorff Henkes Zeitschrift für Staatsarzneikunde, 22r. Jahrg, 1842, 3s heft, s. 185. Vesicular Disease contracted from Sheep, by *George Burrows,* M.D., F.R.S., in *Med. Times and Gazette,* and *Veterinarian,*

often is productive of the most baneful results, even unto speedy death. The fact that many persons have

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1856. On the Production of Tænia considered in relation to public Hygiene, by Dr. *Riecke*, of Nordhausen, in Henle's Zeitschrift, *Edinburgh Med. Jour.*, October, 1857. "Case of Tape-worm occurring in connection with the eating of measled pork," communicated by Dr. W. T. *Gairdner* to Medico-Chirurgical Society of Edinburgh. Clinical observations of effects of eating measley pork and unsound meat, by Dr. *Gibbon*, Dr. *Challice*, and others, in *Report on Unwholesome Meat*, by Committee of Metropolitan Association of Medical Officers of Health. Ueber das Fleisch der Schlachtbaren Hausthiere in Gewerblicher und Sanitäts-polizeilischer Beziehung. Ein Handbuch von Veterinair Assessor Hildebrandt. Magdeburg, 1855, S. 144. On the consignment of Sick Cattle to the Butcher, by Mr. Hosburgh, of Dalkeith, *Vet*, 1842. Eduardo Turchetti in Archiv für Thierheilkunde, Band xii, Heft. 1, Zurich, 1843, and Gaz. Méd. de Paris, 6 Aug. 1842. Hering Leistungen in der Thierarzneikunde, p. 66. Vermeintliche Brechweinsteinvergiftung bei Menschen in Folge des Genusses von Fleische eines Zuvor mit Brechweinstein behandelten Ochsen-Mitgeheilt vom Herausgeber in Centraltzeitung für die Gesammte, Veterinärmedizin, herausgegeben von Dr. Johann Martin Kreutzer; Vierter Jahrgang; Erlangen, 10 Mai 1854, s. 74, und Forts. Umschau auf dem Gebiete der Staatsveterinärmedizin von Dr. Johann Martin Kreutzer in Centralzeitung, supra cit. Beitrag zur Erledigung der Frage, ob der genuss des Fleisches Milzbrandkranker Thiere, schadlich sei oder nicht. Dr. Rosenthal, in Caspar's Viertaljahrschrift für gerichtliche und öffentliche Medizin, 1854, Zweites Heft.

Canstatt's 'Jahresbericht über die Leistungen in des Thierheilkunde' in Jahre, 1853, s. 65, und in Jahre, 1854, p. 61. Dr. A. Neuman, 'Ueber den genuss des Fleisches Kranker Thiere,' in Het. Repertorium Tydschrift voor de Geneeskunde in al haren Omvang, Leiden, 1853. Professor John Gamgee

often subsisted on animal food of the worst kind, is no more an argument against the injuriousness of such alimentation, than would be a plea for the harmlessness of a cholera or intermittent fever atmosphere, founded on the fact that a large number of persons may breathe it without apparent suffering. The fair presumption is, that from impure materials the sustenance of the human body cannot be derived without risk ; and, accordingly, experience teaches, that although by the marvellous organic and functional provisions of the animal economy, injurious influences from without are, in great measure, counteracted, yet impure air, water, and solid aliment, cannot be introduced into the system without weakening the vital powers, and often without the most disastrous immediate results. Moreover, it is most fair to argue that the number of cases of illness referable to the eating of diseased meat is even much greater than that recorded in the annals of science, it being impossible in very many instances to trace back the causes of a disease, and to ascertain what kind of animal food has been partaken of.

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on 'Unwholesome Meat,' in Scotsman, 28 Feb. 1857. Congrossi Acta Erudit. an. 1713-14, Malad. Epiz. p. 125. Anleitung den Gesundheitszustand und die Krankheiten der Schlachtbaren Hausthiere im lebenden wie geschlachteten zustande zu erkennen von Königl. Regierungs. Departements, Thierarzt zu Breslau, F. Grüll, Breslau, 1848. Verheren, 'Sur la vente de la chair des animaux atteints de certains maladies.'—Rapport fait à l'Académie Royale de Médecine de Belgique, *vide* Recueil de Méd. Vét. 1847, p. 851 et *seq.*

It is perfectly certain that most sausage makers' use up the diseased parts, which even the poor would not buy ; the frequenters of eating-houses, particularly in some neighbourhoods, are largely supplied with the best-looking parts of diseased beasts ; and even in good society no guarantee exists against such occurrence, beyond the honesty of individual purveyors. And be it not imagined that because the hind quarters of a beast that has died with typhus, or the fore quarters of a fine fat young cow that has died with puerperal fever, may chance to look well, therefore they are harmless as food. The poisoned blood has circulated through every tissue, and, besides its dose of animal poison, it has been the carrier of the medicinal substances that may have been administered to the beast before death. I have supplied reference to a case of poisoning in man from eating the flesh of an ox that had been treated with tartarized antimony, and Professor Macadam of Edinburgh has experimentally proved that strychnine is discoverable, and in notable quantity, in the tissues of a dog that had been fed on the flesh of a horse killed with strychnine. It is a fact, which I can produce in evidence, that a cow-keeper at Chelsea would not let a veterinary surgeon continue to give sulphuric ether to one of his sick cows, because it had been smelt in the milk by one of his customers. Other drugs were substituted, health did not return, and in the regular course, after having supplied its dis-

eased and medicated milk the beast was sent to the slaughterer, and thence partly to the sausage-maker and partly to the butcher!

An aspect of the case not to be lost sight of is, that this traffic in diseased beasts is a most dishonest one; that the majority of those who are engaged in it know it to be such, and employ every art to deceive the population, the poor part of which most grievously suffers. Assuming that every one will admit the evil is one of the most enormous magnitude and seriousness, I shall now proceed to consider the principles on which legislative enactments should be based to arrest it.

In the first place, it is important to establish that the flesh of animals dying from or with disease is not invariably prejudicial to man; in many cases its injurious effects are extreme, in others they do not appear. Hence the necessity of defining the line of demarcation; because it is a great *desideratum* to lessen the loss from disease to cattle breeders and dealers, and to allow a cheap article of food for the population, so long as such advantages are not attended with counterbalancing evils. It is a curious fact, of great practical moment to be known, that the extent in which the flesh of diseased animals is injurious to man, is not in exact proportion to the degree in which the disease is fatal to themselves. Thus: whereas oxen affected with pleuro-pneumonia frequently die in a few days, their carcases may be eaten—the

actually diseased parts excepted—with comparative impunity; but the flesh of malignant anthrax, of the cynanche maligna of pigs, of puerperal fever, and gangrenous erysipelas, is capable of producing the most disastrous consequences, if partaken of as human food. Moreover, all parasitic affections affecting the edible parts of animals are most serious; because scientific experience has amply demonstrated, that men partaking of them become themselves infected with worms; the cœnurus cerebri of the sheep, and the cysticercus cellulosæ of pigs, develop into the tænia in the dog and man. These facts render absolutely necessary the inspection of live and dead meat markets by persons endowed with the knowledge, which only experience, obtained carefully with the lights of science, is capable of imparting.

The question now centres itself into what is the best plan for inspecting live and dead meat markets? To London more particularly do I refer. London is supplied with meat from the following sources:

a. Cattle and sheep from the continent.

b. The cows which become diseased in metropolitan sheds.

c. Live and dead beasts from Scotland and Ireland; chiefly the former.

d. Beasts from the counties of England and Wales.

a. Foreign cattle and sheep. When considering

the laws necessary for averting the spread of contagious diseases, I have suggested measures for preventing the importation of infected or suspected animals, which, if carried into execution, must ensure the landing of only healthy beasts; the subsequent inspection of which, has an importance secondary to the next matter for consideration.

b. The cows which have become diseased in the metropolitan sheds.—These sheds are notoriously and for very obvious reasons foci of disease. When cows are brought into them from the country, the artificial state of living, impure air and dirt, speedily engender disease; nevertheless the milk is supplied to the dairies; if the animal survive, it continues for months, and often years, in the same filthy stall, yielding its quota of milk. The very great majority of these cows die diseased, and are supplied as food to the people without inspection. The remedy, at first sight, would appear to be strict inspection of these sheds; but, to be effectual, this would be an expensive process; every consideration of economy, hygiene, and humanity points to the remedy, radical as it is cheap—an order to prevent the keeping of milk cows in London. In defence of such an order, besides the above reasons, may be submitted the most urgent consideration, that no valid argument can be adduced why the present toleration should be continued. As a means of supplying London with milk, the cowsheds in it are next to valueless, by far the larger proportion

of that commodity being brought in by rail from the surrounding country; the country milk is of much better quality, the cows which supply it living better, viz., more naturally. If to the suggestion here made be given the force and form of law, it appears difficult to understand, how any considerations can be adduced to outweigh the many reasons, economical, sanitary, and humanitarian, which can be adduced in its support.

c. The London market is supplied with live and dead beasts from Scotland and Ireland, chiefly the former. Scotch beef is undoubtedly amongst the very best with which this great market is supplied, but it is absolutely indispensable that the slaughter houses and markets of Scotland be most rigorously inspected; otherwise a great facility is afforded to sending to London parts of animals that have fallen prey to the most terrible diseases. With reference to the Scotch markets, my brother John observes:—"When in Aberdeen, last autumn, I was painfully struck in witnessing as much heedlessness there regarding the sale of diseased meat, as anywhere else in Great Britain,—a fact not only serious to the population of that city, but to London; Aberdeen being one of the chief ports whence meat is shipped for the metropolis.

"I found that in Aberdeen there were no special slaughter-houses: that most of the butchers of the suburbs, in whose stalls the diseased meat is chiefly sold, live in the country, and it is in their farms

that the cattle are dressed for the Aberdeen or London Market. The diseased animals are bought up and either driven or transported in carts to such farms, and conveyed into town on Friday and Saturday more than other days.

" Carefully conducted inquiries enabled me to find out when and how the meat enters Aberdeen and eludes the vigilance of the inspector. As to this officer I am informed that *he is inspector of weights and measures, is collector of the rents of the city established churches*, and has other laborious duties to perform besides holding the *inspectorship of meats*."

Under these circumstances the importance of most efficiently inspecting the Scotch markets cannot be exaggerated.

d. We have finally to consider the chief source of supply to the London live market—the counties of England and Wales. There can be no question that inspection of a market like the new one at Islington, to which, in the course of a week 5,000 oxen and 20,000 sheep are an average concourse, is a matter of the very first importance. Neither has it escaped the consideration of the City corporation. But in the Regulations for the market nothing is enacted for the imperatively required sanitary inspection, and, so far as I have been able to extend my inquiries, it appears no specific instructions are issued to the officer on whom the inspectorship devolves—with what result, the pre-

viously recorded experience attests. It is of the very first importance to the *Public Health* and to the interests of *Agriculture*, that the inspector of the great metropolitan cattle market should discharge his duties with entire efficiency. Continuance of the slaughter-houses adjoining that market in their present state, must offer a premium to fraud, in so far as it constitutes what should be the mart for healthy beasts the most easy place for selling, and preparing for the butcher, diseased ones; and here I am led to the general question of the Inspectorship of the Metropolitan Slaughter-houses. These are so numerous, that while it is most important they should be subject to the most rigid supervision, the inspectors of nuisances cannot perform it in addition to their other heavy duties. Moreover, these officers are only competent to determine as to the degree of cleanness of the building, whereas it would be very important that they should be able to inspect the animals slaughtered, and determine as to their soundness or otherwise. Such are the arts of the butcher, such the appearances of nature, that the inspection of dead-meat markets must be comparatively useless, unless live markets and slaughter-houses are under most rigid control.

Distributed as the almost innumerable slaughter-houses now are all over London, it is impossible to conceive how they can be efficiently inspected without such a staff of officials as would entail great expense,

and, in spite of intelligence and zeal, would meet with very great difficulties in the performance of their duty. These considerations, conjoined with the fact that the existence of so large a number of slaughter-houses in the metropolis cannot but be regarded as a very great nuisance, and, hygienically very prejudicial, suggest the advisability of suppressing these establishments. Their evils are certain, while, to counterbalance, no good reason for continuance of the present system can be adduced.

I venture to suggest that all private slaughter-houses be forbidden in London, and that public ones be constructed. A magnificent site for them would be immediately adjoining the Islington market, on a part of the spare ground belonging to the City corporation, and already enclosed by a wall. If this plan were adopted, the inspectorship of the live market could be extended to the slaughter-houses with great economy, and still greater efficiency, for the public could then have a sure guarantee that no beast was sold and slaughtered for human food in London which could be prejudicial to health: detection of the unfit being a matter of certainty. The reform would be more complete, the paramount interests of the Public Health more effectually provided for, if the chief dead meat market were also concentrated at Islington, where the City corporation owns land in addition to the present cattle market, and to what would be re-

quired for the projected slaughter-houses, abundantly sufficient for the construction of a most healthy and commodious dead-meat market. The suppression of Newgate market is most urgently called for; its smallness altogether unfits it for the enormous business of the day; while the vast number of its little dark shops, or rather holes, offers great facility to the hiding bad meat, which in the day is imperfectly visible, and when brought out under a gas illumination on Saturday night, does not show its true colours, and finds purchasers in the poor and hard-working population. The transference of the dead meat market to old Smithfield could only be regarded as the establishment of a very great nuisance on a site now pure, though but the other day a disgrace to the kingdom. If the suggestions here made were adopted, then, indeed, could an efficient inspectorship be enforced, while the City would be relieved of a great nuisance, and one of its great avenues of traffic be relieved of inordinate pressure. To counterbalance these enormous advantages, only one objection could be adduced,—the convenience of a small class; for, I conceive, the pecuniary interests of the City corporation could be secured in arranging the concentration of markets and slaughter-houses on its Islington property. As to the convenience of dead meat salesmen and their customers, it is not easy to conceive how they can be so materially affected as to outweigh the unquestionable advantages of

the proposed plan, to which others have yet to be added.

While the great supply of dead meat from Scotland and the Eastern Counties Railway could be conveyed to the new Market by the Blackwall Rail as easily as to Newgate, the supply by the Great Northern and Western lines would be much easier of transfer. Furthermore, the proposed concentration of live and dead markets and slaughter-houses at Islington would practically abolish the circulation of live cattle through London,—in no way a mean consideration. Whether it might be desirable for the more distant parts of the metropolis, to construct one or more subordinate slaughter-houses and dead-meat markets, is a question of secondary importance, and which in no way affects the general question of the abolition of the present system of slaughtering, and the removal of Newgate Market.

If I have succeeded in demonstrating the existence of great public evils, and the inefficiency of existing laws to provide against them ; if, additionally, I have made clear that we are in peril of one of the greatest calamities that can befall a nation—a cattle plague, I feel confident Her Majesty's Government will take the facts here embodied into its most serious consideration, and provide for them in a measure, and with a readiness commensurate with the gigantic interests at stake,—the

Public Health and the interests of Agriculture. The former is most injuriously affected by the vast amount of diseased meat sold and consumed for human food; and though the latter—the interests of agriculture—have not yet suffered the calamity which has befallen some nations of continental Europe, yet the danger is real and enormous, as far as it concerns a pestilence, against which the only hope rests in provident and energetic preventive measures.

I have the honour to be, Sir,

Your most obedient humble servant,

JOSEPH SAMPSON GAMGEE.

16, *Upper Woburn Place, Russell Square.*
25th March, 1857.

T. RICHARDS, 37 GREAT QUEEN STREET.